

The Weekly Petroleum Status Report (WPSR) provides timely information on the petroleum supply situation in the context of historical information, selected prices, and forecasts. The WPSR is intended to provide up-to-date information to the industry, the press, planners, policymakers, consumers, analysts, and State and local governments. It is published each Thursday by the Energy Information Administration. The data contained in this report are based on company submissions for the week ending 7 a.m. the preceding Friday.

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Questions on energy statistics should be addressed to the NEIC. Addresses and telephone numbers appear below.

National Energy Information Center, £1-20 Energy Information Administration Forrestal Building Room IF-048 Washington, D.C. 20585 (202) 252-8800

Superintendent of Documents U.S. Government Printing Office Washington, D.C. 20402 (202) 783-3238

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#### HIGHLIGHTS

#### Refinery Activity

Crude oil input to refineries averaged 12.2 million barrels per day for the four weeks ending November 30, 1984. Refinery capacity utilization averaged 77.3 percent during the period. During the four weeks ending November 30, 1984, motor gasoline production averaged 6.7 million barrels per day, and distillate fuel oil production averaged 2.8 million barrels a day.

#### Stocks

On November 30, 1984, stocks of crude oil (excluding the Strategic Petroleum Reserve) stood at 346.9 million barrels, about 2 percent above the level one year ago. Stocks of total motor gasoline, at 241.2 million barrels, were about 2 percent above the level one year ago. Distillate fuel oil stocks stood at 161.6 million barrels, about the same as the level one year ago. Stocks of residual fuel oil stood at 49.1 million barrels, about 9 percent below the level one year ago.

#### Imports

Net imports of crude oil (including imports for the Strategic Petroleum Reserve) and petroleum products together averaged 4.6 million barrels a day for the four weeks ending November 30, 1984, about 3 percent above the average a year ago. Gross imports of crude oil (excluding the Strategic Petroleum Reserve) averaged 3.4 million barrels a day for the four-week period ending November 30, 1984.

#### Products Supplied

Total petroleum products supplied averaged 15.4 million barrels a day for the four-week period ending November 30, 1984, which is about 1 percent below the rate supplied a year ago. Motor gasoline was supplied at a rate of 6.7 million barrels a day, which is about 1 percent above the rate supplied a year ago. Distillate fuel oil was supplied at a rate of 2.9 million barrels a day, about the same as the rate supplied a year ago.

#### World Crude Oil Price

The estimated weighted average international price of crude oil as of December 4, 1984, remains at \$28.43 a barrel.

#### Spot Market Product Price

For the week ending November 30, 1984, the average spot market price of 98 octane gasoline on the Rotterdam market decreased 59 cents to \$28.78 a barrel; the gasoil price decreased \$2.35 to \$29.96 a barrel, and the price of residual fuel oil decreased 75 cents to \$27.93 a barrel. On the New York market, the average spot price of 89 octane regular gasoline decreased 73 cents to \$28.92 a barrel; the price of No. 2 heating oil decreased 63 cents to \$31.50 a barrel. and the residual fuel oil price decreased 10 cents to \$28.80 a barrel.

\*\*

\* Data for the week ending November 23, 1984 have been revised in this week's issue. An unusually large to unuber of data resubmissions were received from companies that had filed incomplete reports for thanksgiving week.

\* Thanksgiving week.

Petroleum Supply		Averages od Ending	Percent	Daily	lative Averages Days	Percent
(Thousand Barrels per Day)	11/30/84	11/30/83	Change	1984	1983	Change
Crude Oil Supply 1						
(1) Domestic Production'	E8,846	8,770	0.9	E8,753	8,714	0.4
(2) Net Imports (Including SPR) <sup>2</sup>	3,513	3,151	11.5	3,258	3,169	2.8
(3) Gross Imports (Excluding SPR)	3,428	3,166	8.3	3,246	3,102	4.6
(4) SPR Imports	261	171	*-	193	238	= -
(5) Exports	E176	186	-5.4	E180	171	5.6
(6) SPR Stocks Withdrawn (+) or Added (-)	-248	-135		-191	-232	=-
(7) Other Stocks Withdrawn (+) or Added (-)	-382	250		-9	25	~ •
(8) Products Supplied and Losses	E-65	-66		E-64	-68	
(9) Unaccounted-for Crude	574	35	m 44	370	117	day alfi
(10) Crude Oil Input to Refineries	12,239	12,004	2.0	12,117	11,726	3.3
Other Supply	F4 405	4 44	4 8	F4 4D4	4 +50	
(11) NGL Production	E1,665	1,641	1.4	E1,631	1,559	4.6
(12) Other Hydrocarbon Input and Alcohol Input	E36	50 64	-28.0	E46	54 66	-15.1 -4.9
(13) Crude Oil Product Supplied	E65 581	547	0.8 6.3	E63 557	494	12.9
(14) Processing Gain (15) Net Product Imports	1,131		-18.0		1,134	27.3
(16) Gross Product Imports <sup>3</sup>	1,653	1,379 1,873	-11.8	1,444 1,953	1,712	14.1
(17) Product Exports	E522	494	5.7	É509	578	-12.0
(18) Product Stocks Withdrawn (+) or Added (-)4	-330	-185	J, 7	-116	58	1240
(19) Total Product Supplied for Domestic Use	15,386	15,500	-0.7	15,742	15,091	4.3
Products Supplied						
(20) Motor Gasoline	6,680	6,603	1.2	6,705	6,601	1.6
(21) Naphtha-type Jet Fuel	237	190	24.6	226	207	9.2
(22) Kerosene-type Jet Fuel	955	819	16.6	943	826	14.2
(23) Distillate Fuel Oil	2,870	2,874	-0.1	2,840	2,627	8.1
(24) Residual Fuel Oil s	1,123	1,362	-17.6	1,363	1,406	-3.0
(25) Other Oils Supplied	3,522	3,652	-3.6	3,665	3,424	7.0
(26) Total Products Supplied	15,386	15,500	-0.7	15,742	15,091	4.3
Petroleum Stocks					Percent Cha	
(Million Barrels)	11/30/84	11/23/84	11/30/83	Pre	vious Week	Year Ago
Crude Oil (Excluding SPR) <sup>6</sup>	346.9	R353.9	341.7		-2.0	1.5
Total Motor Gasoline	241.2	R234.1	235.5		3.0	2,4
Finished Motor Gasoline	200.5	R195.0	195.7		2.8	2.4
Blending Components	40.7	R39.1	39.9		4.1	2.1
Naphtha-type Jet Fuel	6.2	R6.8	6.4		-7.9	-2.7
Kerosene-type Jet Fuel	39.0	R39.4	39.1		-1.1	-0.5
Distillate Fuel Oil	161.6	R159.4	161.3		1.4	0.2
Residual Fuel Oil	49.1	R50.8	54.1		-3.2	-9.1
Unfinished_Oils	101.3	R104.6	109.2		-3.2	-7.3
Other Oils'	E172.0	E172.5	191.0		-0.2	-9.9
Total Stocks (Excluding SPR)	1,117.4	R1,121.5	1,138.3		-0.4	-1.8
Crude Oil In SPR	443.0	441.3	371.2		0.4	19.4
Total Stocks (Including SPR)	1,560.4	R1,562.7	1,509.5		-0.1	3.4

Note: Due to independent rounding, individual product detail may not add to total. The percentages shown are calculated using unrounded numbers.

E=Estimate based on monthly data.
1 Includes lease condensate.

<sup>2</sup> Net Imports = Gross Imports (line 3) + SPR Imports (line 4) - Exports (line 5).

<sup>3</sup> Includes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids for processing.

<sup>4</sup> Includes an estimate of minor product stock change based on monthly data.
5 Includes crude oil product supplied, natural gas liquids, liquefied refinery gases, other liquids, and all finished petroleum products except motor gasoline, jet fuels, and distillate and residual fuel oils.
6 Includes crude oil in transit to refineries.
7 Included are stocks of all other oils such as aviation gasoline, kerosene, natural gas liquids (including ethane), aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils. For the current two weeks, stocks of these minor products are estimated from monthly data. (See Glossary: Stock Change (Refined Products)).

Source: o 1983 Annual Data: EiA, "Petroleum Supply Annual."
o 1984 Monthly Data: EiA, "Petroleum Supply Monthly."
o 1984 Four-Week Averages: Estimates based on EiA weekly data. Weekly Petroleum Status Report/Energy Information Administration

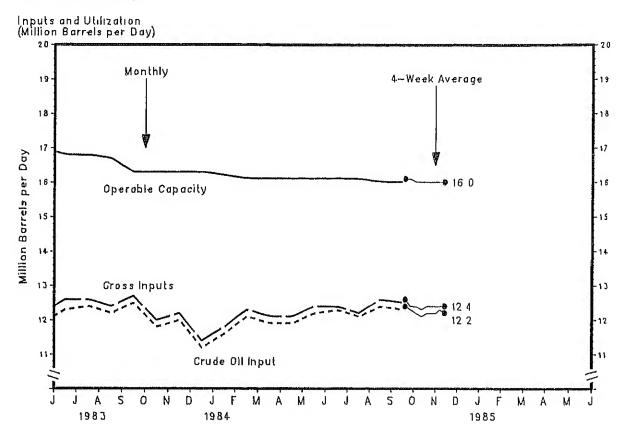
# REFINERY ACTIVITY (Million Barrels per Day)

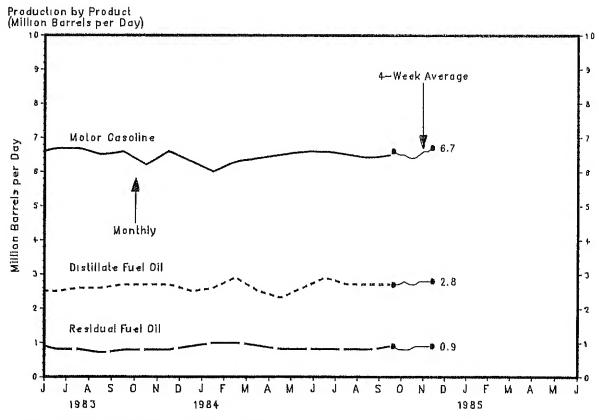
# inputs and Utilization

Year/Element	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Ort	Nov	Dec
1982 Crude Oil Input Gross Inputs Operable Capacity Percentage Utilization	11.6 12.0 17.9 67.0	11.2 11.6 17.8 65.1	11.3 11.7 17.8 65.5	11.4 11.8 17.8 66.2	11.8 12.2 17.8 68.8	12.5 12.9 17.3 74.9	12.4 12.9 17.2 74.9	11.9 12.2 17.2 71.0	12.1 12.6 17.0 73.9	11.7 12.2 17.2 70.6	11.7 12.1 17.2 70.6	11.5 11.9 17.1 69.7
1983 Crude Oil Input Gross Inputs Operable Capacity Percentage Utilization <sup>1</sup>	11.1 11.5 16.9 68.0	10.6 11.0 16.9 65.1	10.9 11.1 16.9 66.0	11.4 11.7 16.9 69.6	11.8 12.1 16.9 71.6	12.3 12.6 16.8 74.9	12.4 12.6 16.8 74.9	12.2 12.4 16.7 73.8	12.5 12.7 16.3 78.1	11.8 12.0 16.3 73.4	12.0 12.2 16.3 74.8	11.4 11.4 16.3 69.9
1984 Crude Oil Input Cross Inputs Operable Capacity Percentage Utilization <sup>1</sup>	11.6 11.8 16.2 72.9	12.1 12.3 16.1 76.1	11.9 12.1 16.1 75.0	11.9 12.1 16.1 74.8	12.2 12.4 16.1 77.2	12.3 12.4 16.1 77.1	12.1 12.2 16.1 76.0	12.4 12.6 16.0 78.4	12.3 12.5 16.0 78.4			
Average for Four-Week Period	Ending: 10/5	10/12	10/19	10/26	11/2	11/9	11/16	11/23	11/30			
Crude Oil Input Gross Inputs Operable Capacity Percentage Utilization <sup>1</sup>	12.4 12.6 E16.1 78.0	12.3 12.4 E16.1 77.4	12.2 12.4 E16.0 77.1	12.1 12.3 E16.0 76.6	12.2 12.4 E16.0 77.2	12.2 12.4 E16.0 77.2	12.2 12.4 E16.0 77.3	R12.3 R12.4 E16.0 R77.5	12.2 12.4 E16.0 77.3			
Production by Product												
Year/Product	Jan	Feb	Mar	Apr	May	Jun	Ju <b>1</b>	Aug	Sep	Oct	Nov	Dec
1982 Motor Casoline Jet Fuel Distillate Fuel Oil Residual Fuel Oil	6.2 0.9 2.6 1.2	5.9 1.0 2.4 1.2	6.0 1.1 2.3 1.1	6.1 1.0 2.4 1.2	6.3 0.9 2.6 1.1	6.8 0.9 2.7 1.1	6.8 1.0 2.7 1.0	6.4 1.0 2.5 1.0	6.5 1.0 2.7 1.0	6.3 1.0 2.8 1.0	6.3 1.0 2.9 1.0	6.5 0.9 2.7 1.0
1983 Motor Casoline Jet Fuel Distillate Fuel Oil Residual Fuel Oil	6.1 1.0 2.3 1.0	5.8 1.0 2.1 0.9	5.9 1.0 2.0 0.8	6.2 1.0 2.2 0.9	6.4 1.0 2.4 0.9	6.7 1.0 2.5 0.8	6.7 1.0 2.6 0.8	6.5 1.0 2.6 0.7	6.6 1.1 2.7 0.8	6.2 1.0 2.7 0.8	6.6 1.1 2.7 0.8	6.3 0.9 2.5 0.9
1984 Motor Gasoline Jet Fuel Distillate Fuel Oil Residual Fuel Oil	6.0 1.0 2.6 1.0	6.3 1.1 2.9 1.0	6.4 1.1 2.5 0.9	6.5 1.1 2.3 0.8	6.6 1.1 2.6 0.8	6.6 1.1 2.9 0.8	6.5 1.2 2.7 0.8	6.4 1.2 2.7 0.8	6.5 1.2 2.7 0.9			
Average for Four-Week Period	l Ending: 10/5	10/12	10/19	10/26	11/2	11/9	11/16	11/23	11/30			
Motor Gasoline Jet Fuel Distillate Fuel Oil	6.6 1.2 2.7 0.9	6.5 1.1 2.7 0.8	6.5 1.2 2.8 0.8	6.4 1.2 2.7 0.8	6.4 1.2 2.7 0.9	6.5 1.2 2.8 0.9	6.6 1.2 2.8 0.9	6.6 1.1 2.8 0.9	6.7 1.2 2.8 0.9			

lata.
. four-week average gross inputs divided by the latest
.sary. Percentages are calculated using unrounded numbers.
.t production (i.e., refinery output minus refinery input).
.ication.

# Refinery Activity





Source See Sources Section of this publication.

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Ju1	Aug	Sep	Oct	Nov	Dec
1982 Crude Oil <sup>2</sup> Motor Gasoline Finished Gasoline	371.0 260.8 213.2	256.6 208.4	360.7 246.5 198.1	354.8 221.3 178.6	348.5 213.9 173.1	344.1 218.5 177.1	345.7 225.9 182.7	352.9 226.9 185.2	340.7 233.6 191.1	351.0 234.4 192.4	357.6 230.0 189.3	349.7 235.4 194.4
Blending Components Jet Fuel Distillate Fuel Oil Residual Fuel Oil Unfinished 20ils	47.6 36.9 164.4 68.7 115.9	36.9	48.5 42.5 126.3 58.1 115.9	42.7 44.1 108.0 53.6 119.1	40.8 41.7 113.6 59.0 118.2	41.4 39.9 123.7 60.7 118.0	43.2 39.8 148.1 58.9 117.8	41.8 40.7 158.7 52.6 116.8	42.5 39.6 161.2 61.8 117.8	42.0 40.9 170.1 63.6 113.3	40.7 40.6 185.6 66.4 111.8	40.9 36.8 178.6 66.2 105.3
Other Oils <sup>3</sup> Total (Excl. SPR) Crude Oil in SPR Total (Incl. SPR)	203.0 1,220.6 235.3	199.1 1,186.9 241.2	193.3 1,143.4 248.5	189.2 1,090.0 255.5	190.8 1,085.7 261.0	191.1 1,096.0 264.1	190.1 1,126.3 267.2	186.4 1,134.9 273.6	181.3 1,136.1 277.9	174.6 1,147.8 284.6	173.3 1,165.2 290.0 1,455.2	164.1 1,136.1 293.8
1983 <sup>4</sup> Crude Oil <sup>2</sup> Motor Gasoline Finished Gasoline Blending Components Jet Fuel Distillate Fuel Oil Residual Fuel Oil Unfinished Oils Other Oils <sup>3</sup> Total (Excl. SPR) Crude Oil in SPR Total (Incl. SPR)	300.6	250.2 206.5 43.8 39.4 148.2 53.3 108.7 161.0 1,124.1 306.1	311.8	317.7	326.8	332.5	40.7 40.8 130.7 51.9 108.0 188.8 1,085.8 340.7	351.8	361.0	367.2	341.4 235.8 196.0 39.8 45.6 161.2 54.2 109.9 1,138.3 371.3 1,509.6	379.1
1984 Crude Oil <sup>2</sup> Motor Gasoline Finished Gasoline Blending Components Jet Fuel Distillate Fuel Oil Residual Fuel Oil Unfinished <sub>3</sub> Oils Other Oils Total (Excl. SPR) Crude Oil in SPR	384.4	387.2	391.8	396.9	404.5	413.7	423.9	334.9 225.1 186.6 38.5 45.6 133.5 44.7 1080.7 1,070.6 429.5 1,500.1	431.1			
Week Ending: 1984	10/5	10/12	10/19	10/26	11/2	11/9	11/16	11/23	11/30			***
Crude Oil in SPR	432.1	1,093.6	1,093.7	433.9	1,097.4	1,109.5	439.2		443.0			

R=EIA Revision

E=Estimated. See Glossary for definition of "Stock Change (Refined Products)" for explanation of other oils estimation methodology.

<sup>1</sup> Product stocks include those stocks held at refineries, in pipelines, and at major bulk terminals. Stocks held at natural gas processing plants are included in "Other Oils" and in totals. All stock levels are as of the end of the period.

<sup>2</sup> Crude oil stocks include those stocks held at refineries, in pipelines, in lease tanks, and in transit to refineries, and do not include those held in the Strategic Petroleum Reserve.

3 Included are stocks of all other oils such as aviation gasoline, kerosene, natural gas liquids (including ethane), aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils.

4 See Appendix D for explanation of the 1983 new stock basis.

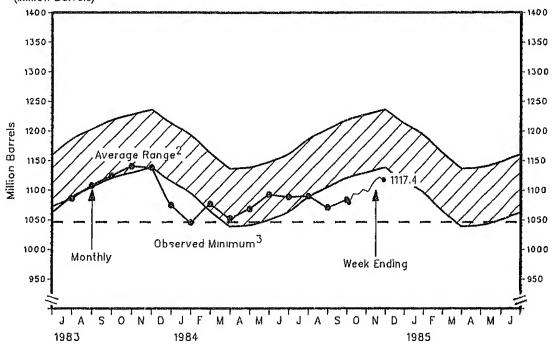
Note: Data may not add to total due to independent rounding.

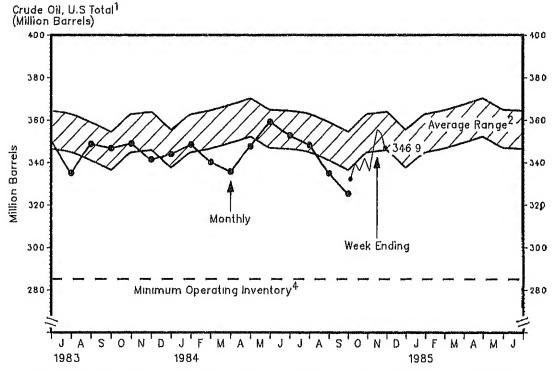
Source: See Sources Section of this publication.

Source: See Sources Section of this publication.

# Stocks

Crude Oil and Petroleum Products, U.S. Total<sup>1</sup> (Million Barrels)





1 Excludes stocks held in the Strategic Petroleum Reserve and includes crude oil in transit to refineries. See Appendix D for explanation of the 1983 new stock basis.

2 Average level, width of average range, and observed minimum are based on three years of monthly data. July 1981—June 1984. The seasonal pattern is based on seven years of monthly data. See Appendix B for further explanation.

3 The observed minimum for total stocks in the last three—year period, July 1981—June 1984, was 1045.6 million barrels. It occurred in January 1984. See Appendix B for further explanation.

4 The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the

inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1983 study, the NPC estimated this inventory level for crude oil to be 285 million barrels. See Appendix B for further explanation.

Source: See Sources Section of this publication.

STOCKS OF MOTOR CASOLINE BY PETROLEUM ADMINISTRATION FOR DEFENSE DISTRICT (Million Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	0ct	Nov	Dec
1982 Finished Gasoline Blending Components Total Gasoline East Coast (PADD 1) Midwest (PADD 2) Culf Coast (PADD 3) Rocky Mountain (PADD 4) West Coast (PADD 5)	213.2 47.6 260.8 71.9 77.7 70.2 9.6 31.4	208.4 48.3 256.6 69.7 78.4 69.3 9.9 29.3	198.1 48.5 246.5 66.8 74.0 68.0 10.1 27.6	178.6 42.7 221.3 61.4 62.7 63.2 9.0 25.0	173.1 40.8 213.9 63.6 56.1 63.5 7.7 23.2	177.1 41.4 218.5 65.5 56.4 64.9 6.5 25.3	182.7 43.2 225.9 63.1 62.8 66.0 5.8 28.1	185.2 41.8 226.9 62.5 65.8 65.2 5.5 27.9	191.1 42.5 233.6 63.5 69.3 67.5 5.7 27.7	192.4 42.0 234.4 63.5 67.0 69.8 6.5 27.6	189.3 40.7 230.0 66.1 64.0 65.5 7.1 27.2	194.4 40.9 235.4 67.5 65.3 66.2 8.5 27.9
1983 <sup>1</sup> Finished Casoline Blending Components Total Casoline East Coast (PADD 1) Midwest (PADD 2) Gulf Coast (PADD 3) Rocky Mountain (PADD 4) West Coast (PADD 5)	207.2 42.5 249.7 70.2 75.2 63.9 9.4 31.0	206.5 43.8 250.2 66.0 77.4 65.5 9.4 31.9	182.7 40.4 223.0 55.3 68.3 65.4 8.3 25.8	182.8 37.9 220.7 60.8 65.3 62.6 7.9 24.1	185.3 37.8 223.1 63.1 63.7 63.9 7.4 25.0	182.8 39.7 222.6 61.3 63.7 64.2 6.7 26.6	189.8 40.7 230.5 64.4 64.2 65.3 6.4 30.3	184.8 41.5 226.3 62.6 64.4 62.4 5.9 30.8	189.3 39.8 229.1 64.1 65.4 64.8 5.9 28.9	187.1 40.3 227.4 61.7 64.4 67.9 6.3 27.1	196.0 39.8 235.8 63.5 68.4 69.9 7.4 26.6	185.5 36.9 222.4 63.8 63.7 60.1 7.7 27.0
1984 Finished Gasoline Blending Components Total Gasoline East Coast (PADD 1) Midwest (PADD 2) Gulf Coast (PADD 3) Rocky Mountain (PADD 4) West Coast (PADD 5)	185.5 39.9 225.5 61.4 63.2 62.6 8.4 29.9	196.6 40.5 237.1 65.2 68.4 66.2 8.7 28.6	202.8 40.5 243.2 65.2 71.1 71.1 9.0 26.8	207.4 40.6 248.0 66.9 71.4 72.5 8.7 28.5	210.7 42.1 252.7 71.1 68.3 73.0 8.8 31.5	204.1 41.3 245.4 69.3 65.5 71.0 7.9 31.7	200.1 38.4 238.5 72.2 64.7 65.2 7.5 29.0	186.6 38.5 225.1 66.0 62.7 63.2 6.4 26.9	194.5 40.1 234.6 64.9 66.9 69.8 6.2 26.8			
Week Ending: 1984	10/5	10/12	10/19	10/26	11/2	11/9	11/16	11/23	11/30			
Finished Gasoline Blending Components Total Gasoline East Coast (PADD 1) Midwest (PADD 2) Culf Coast (PADD 3) Rocky Mountain (PADD 4) West Coast (PADD 5)	190.3 37.8 228.2 63.1 66.3 66.7 6.0 26.1	192.5 37.8 230.2 64.7 66.0 67.6 5.9 25.9	192.7 37.6 230.3 64.7 66.5 66.9 6.2 26.0	191.8 36.9 228.7 63.0 66.3 67.0 5.9 26.6	192.3 38.2 230.5 63.0 64.7 70.2 6.1 26.6	193.1 38.3 231.4 63.6 64.3 69.5 6.2 27.8	38.2	R195.0 R39.1 R234.1 61.8 R65.4 R71.9 6.3 R28.8	200.5 40.7 241.2 63.0 68.4 72.6 6.6 30.6			

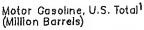
R=EIA Revision

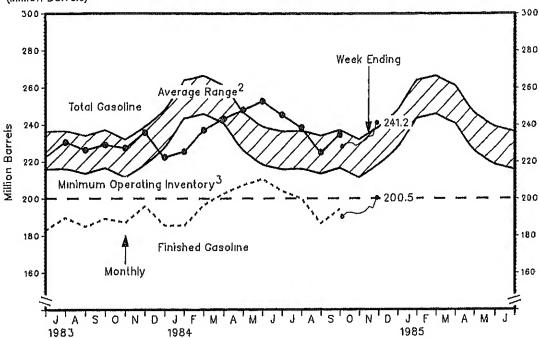
1 See Appendix D for explanation of the 1983 new stock basis.

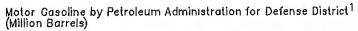
Note: PAD District data may not add to total due to independent rounding.

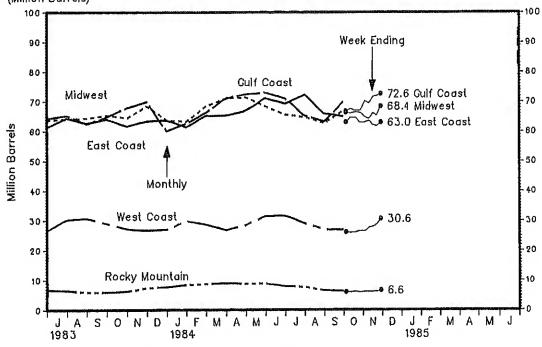
Source: See Sources Section of this publication.

# Stocks









1 See Appendix D for explanation of the 1983 new stock basis.

2 Average level, width of average range, and observed minimum are based on three years of monthly data. July 1981—June 1984. The seasonal pattern is based on six years of monthly data. See Appendix B for further explanation.

3 The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the

3 The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1983 study, the NPC estimated this inventory level for total motor gasoline to be 200 million barrels. See Appendix B for further explanation. Source: See Sources Section of this publication.

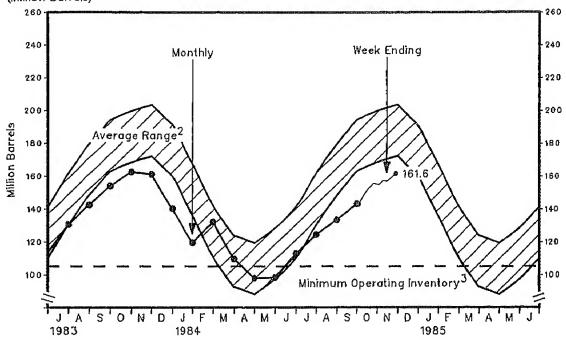
STOCKS OF DISTILLATE FUEL OIL BY PETROLEUM ADMINISTRATION FOR DEFENSE DISTRICT (Million Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	0ct	Nov	Dec
1982	<del></del>				•					<del></del>		····
Total U.S.	164.4	147.4	126.3	108.0	113.6	123.7	148.1	158.7	161.2	170.1	185.6	178.6
East Coast(PADD 1)	68.3	60.3	44.7	35.0	39.1	44.2	57.4	63.9	68.0	75.7	88.7	80.6
Midwest(PADD 2)	46.7	43.1	39.5	30.8	30.8	33.7	42.6	45.5	45.6	44.2	45.3	47.0
Gulf Coast(PADD 3) Rocky Mountain(PADD 4)	31.0 4.1	26.8 3.9	27.6 3.7	28.5 3.1	31.1 2.8	32.6 3.0	34.1 3.4	35.6 3.5	34.0 3.5	37.0	36.9	34.2
West Coast (PADD 5)	14.2	13.3	10.8	10.5	9.8	10.2	10.6	10.2	10.1	3.5 9.6	3.5 11.3	4.0 12.7
1983												
Total U.S.	167.6	148.2	118.1	103.1	108.9	113.7	130.7	142.4	154.0	162.6	161.2	140.3
East Coast(PADD 1)	71.1	55.5	38.0	31.8	36.9	41.0	50.9	61.7	67.5	74.6	70.7	57,7
Midwest(PADD 2)	47.1	46.5	39.0	33.2	30.4	29.6	33.3	36.3	38.6	40.3	42.8	40.2
Gulf Coast(PADD 3)	31.2	28.9	26.7	26.0	28.7	29.7	32.4	30.8	34.4	34,4	33.8	27.8
Rocky Mountain(PADD 4) West Coast(PADD 5)	4.1 14.0	4.0 13.4	3.3 11.1	2.8 9.3	2.9 9.9	2.8 10.6	3.0 11.0	3.0 10.6	2.7 10.8	2.6 10.7	2.8 11.2	3.3
•	(110	1314		3.3	210	1010	11,0	10.0	10.0	10.7	11.2	11.3
1984 Total U.S.	119.5	122.2	100 6	07.0	00.1	112 0	106 6	122 F	162.0			
East Coast(PADD 1)	43.4	132.2 54.4	109.6 37.3	97.8 29.8	98.2 32.5	112.9 39.9	124.5 45.3	133.5 49.2	143.2 57.5			
Midwest(PADD 2)	37.1	37.0	33.5	30.2	27.1	31.7	36.2	39.3	38.6			
Gulf Coast(PADD 3)	24.7	26.8	24.2	23.0	23.6	26.1	28.2	30.6	32.5			
Rocky Mountain(PADD 4)	3.4	3.2	3.4	3.3	3.4	3.5	3.6	3.5	3.3			
West Coast(PADD 5)	10.8	10.8	11.3	11.5	11.5	11.6	11.3	11.0	11.2			
Nool Endine												
Week Ending: 1984	10/5	10/12	10/19	10/26	11/2	11/9	11/16	11/23	11/30			
Total U.S.	143.2											
East Coast(PADD 1)	56.8	148.3 62.4	153.0 66.5	155.6 69.0	154.9 71.6	157.5 72.8	157.1 I 72.7	R73.6	161.6			
Midwest(PADD 2)	36.7	37.0	37.7	37.8	37.3	37.4	36.2	R37.4	74 <b>.1</b> 37 <b>.</b> 9			
Gulf Coast(PADD 3)	35.9	35.6	35.2	34.9	32.1	33.8	34.2	34.3	34.8			
Rocky Mountain(PADD 4)	3.2	2.9	3.0	3.0	3.0	3.0	3.0	3.1	3.1			
West Coast(PADD 5)	10.6	10.4	10.6	11.0	10.9	10.5	11.0	R10.9	11.7			

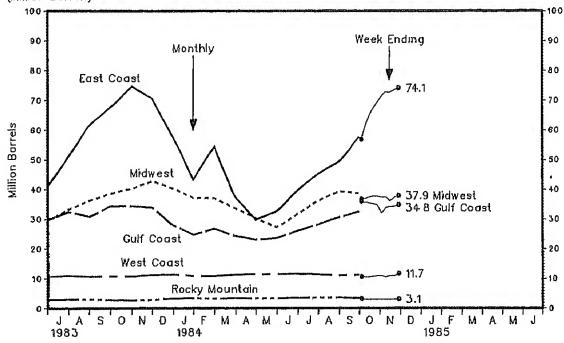
R=EIA Revision

<sup>1</sup> See Appendix D for explanation of the 1983 new stock basis. Note: PAD District data may not add to total due to rounding. Source: See Sources Section of this publication.

Distillate Fuel Oil, U.S. Total (Million Barrels)



Distillate Fuel Oil by Petroleum Administration for Defense District (Million Barrels)



1 See Appendix D for explanation of the 1983 new stock basis.
2 Average level, width of average range, and observed minimum are based on three years of monthly data: July 1981—June 1984. The seasonal pattern is based on seven years of monthly data. See Appendix B for further explanation.
3 The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the

inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1983 study, the NPC estimated this inventory level for distillate fuel oil to be 105 million barrels. See Appendix B for further explanation. Source: See Sources Section of this publication.

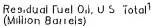
STOCKS OF RESIDUAL FUEL OIL BY PETROLEUM ADMINISTRATION FOR DEFENSE DISTRICT (Million Barrels)

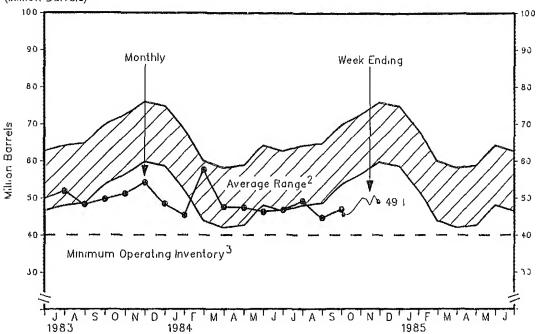
Year/District	Jan	Feb	Har	Aρr	May	Jun	Ju1	Aug	Sep	0ct	Nov	Dec
1982						<del></del>	<del></del>					
Total U.S. Fast Coast(PADD 1) Hickest(PADD 2) Gulf Coast(PADD 3) Rocky Mountain(PADD 4) West Coast(PADD 5)	68.7 32.2 7.8 17.7 0.6 10.3	58.5 25.0 7.3 14.7 0.7	58.1 25.0 7.0 14.7 0.6 10.9	53.6 23.4 6.2 13.5 0.5	59.0 28.3 6.0 15.0 0.5 9.2	60.7 28.2 5.6 17.1 0.5 9.3	58.9 27.1 5.7 16.4 0.5 9.3	52.6 23.1 5.2 15.5 0.4 8.4	61.8 29.0 5.7 16.2 0.5	63.6 32.8 5.1 15.6 0.5 9.6	66.4 36.4 5.0 16.1 0.5 8.4	66.2 34.7 5.2 16.3 0.6 9.3
1983 <sup>1</sup>											- • •	- 10
Total U.S.  East Coast(PADD 1)  Midwest(PADD 2)  Gulf Coast(PADD 3)  Rocky Mountain(PADD 4)  West Coast(PADD 5)	60.5 29.8 5.0 16.2 0.5 8.9	53.3 25.3 4.4 14.0 0.4 9.1	46.3 20.6 3.6 12.8 0.4 8.9	46.6 20.2 3.4 13.4 0.5 9.0	51.0 23.8 3.5 14.5 0.5 8.5	49.9 24.2 3.7 13.1 0.4 8.4	51.9 25.3 3.7 13.7 0.5 8.6	48.3 23.8 3.7 13.2 0.5 7.1	49.7 23.5 3.5 13.8 0.5 8.5	51.2 25.2 3.8 13.5 0.5 8.3	54.2 29.3 3.6 12.3 0.4 8.5	48.5 24.8 4.0 11.0 0.5 8.2
1984												
Total U.S. East Ccast(PADD 1) Midwest(PADD 2) Gull Coast(PADD 3) Rocky Hountain(PADD 4) West Ccast(PADD 5)	45.4 21.0 3.6 11.8 0.4 8.7	57.6 30.8 4.2 12.9 C.4 9.4	47.6 24.4 4.1 9.9 0.5 8.7	47.4 22.7 5.5 10.9 0.5 9.7	46.3 23.1 3.9 10.1 0.6 8.6	46.8 21.9 3.6 11.2 0.5 9.6	49.2 24.7 3.5 9.8 0.6 10.6	44.7 21.9 3.6 9.2 0.5 9.4	47.0 25.0 3.5 9.8 0.5 8.1			
Week Ending: 1984	10 /5	46.440	4040									
7 704	10/5	10/12	10/19	10/26	11/2	11/9	11/16	11/23	11/30			
Total U.S. East Coast(PADD 1) Midwest(PADD 2) Gulf Coast(PADD 3) Rocky Mountain(PADD 4) West Coast(PADD 5)	45.6 24.9 3.6 9.1 0.5 7.4	45.6 25.6 3.4 8.7 0.5 7.4	46.6 25.5 3.4 8.7 0.6 8.5	48.4 26.6 3.5 9.3 0.5 8.6	50.1 26.5 3.6 10.1 0.5 9.3	49.8 28.1 3.7 9.1 0.5 8.5	48.2 27.0 3.8 9.0 0.5 7.9	R50.8 R28.2 3.9 9.8 0.5 R8.4	49.1 26.5 3.7 10.2 0.5 8.2			

R=EIA Pevision

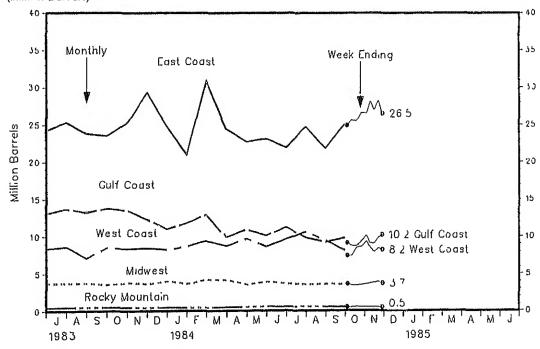
<sup>1</sup> See Appendix D for explanation of the 1983 new stock basis. Note: PAD District data may not add to total due to rounding. Source: See Source: Section of this publication.

# Stocks





Residual Fuel Oil by Petroleum Administration for Detense District <sup>1</sup> (Million Barrels)



1 See Appendix D for explanation of the 1983 new stock basis
2 Average level, width of average range, and observed minimum are based on three years of monthly data. July 1981—June 1984. The seasonal pattern is based on seven years of monthly data. See Appendix B for further explanation
3 The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1983 study, the NPC estimated this inventory level for residual fuel oil to be 40 million barrels. See Appendix B for further explanation.

Source: See Sources Section of this publication.

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Year/Product	Jan	Feb	Mar	Λрг	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1982		<del></del>										
Crude Oil (Excl. SPR)	3.5	2.7	2.7	2.7	3.1	3.7	4.7	3.6	3.5	3.5	3.7	2.9
SPR	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.1
Refined Products	1.6	1.8	1.6	1.5	1.5	1.5	1.6	1.4	1.8	1.6	1.9	1.6
Gross Imports <sub>1</sub> (Incl. SPR) Total Exports	5.3	4.8	4.5	4.4	4.8	5.3	5.9	5.2	5.4	5.3	5.7	4.6
Total Exports'	0.8	0.8	0.9	0.8	0.8	0.7	0.7	0.9	0.8	0.9	0.8	0.9
Net Imports (Incl. SPR) 1983	4.5	4.0	3.6	3.6	4.0	4.6	5.1	4.4	4.6	4.4	5.0	3.7
Crude Oil (Excl. SPR)	2.7	2.1	2.1	2.9	3.7	3.4	3.6	3.9	3.9	3.2	3.2	3.0
SPR	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.4	0.3	0.2	0.2	0.2
Refined Products	1.5	1.5	1,4	1.6	1.7	1.7	1.9	1.9	1.9	1.8	1.9	1.8
Gross Imports (Incl. SPR)	4.4	3.7	3.7	4.7	5.1	5.3	5.7	6.2	6.1	5.3	5.2	5.0
Gross Imports <sub>1</sub> (Incl. SPR) Total Exports	1.0	0.9	0.8	0.8	0.8	0.8	0.6	0.7	0.7	0.6	0.7	0.6
Net Imports (Incl. SPR) 1984	4.4 1.0 3.5	2.9	2.9	3.9	4.2	4.6	5.2	5.5	5.4	4.7	4.5	4.4
Crude Oil (Excl. SPR)	2.8	2.9	3.3	3.2	3.7	3.1	3,3	3.1	3.2			
SPR	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.1			
Refined Products	2.3 5.3	2.7	1.8	1.9	2.0	1.9	1.7	1.8	1.9			
Gross Imports (Incl. SPR)	5.3	5.6	5.3	5.3	5.9	5.3	5.4	5.0	5.2			
Gross imports <sub>1</sub> (incl. SPR) Total Exports	0.6	0.6	0.8	0.7	0.8	0.9	0.5	0.7	0.7			
Net Imports (Incl. SPR)	4,8	5.1	4.4	4.7	5.2	4.4	4.9	4.3	4.5			
Average for Four-Week Period												
1984	10/5	10/12	10/19	10/26	11/2	11/9	11/16	11/23	11/30			
Crude Oil (Excl. SPR)	3.1	3,3	3.5	3.6	3.6	3.8	3.7	3.6	3.4			
SPR	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3			
Refined Products	1.7	1.9	1.9	1.8	1.9	1.8	1.7	1.7	1.7			
Gross Imports (Incl. SPR) Total Exports	4.9	5.3	5.6	5.5	5.6	5.7	5.7	5.6	5.3			
Total Exports'	F0.6	E0.5	E0.6	E0.6	E0.7	E0.7	E0.7	E0.7	E0.7			
Net Imports (Incl. SPR)	4.3	4.8	5.0	4.8	4.9	5.0	4.9	4.8	4.6			

#### IMPORTS OF PETROLEUM PRODUCTS BY PRODUCT (Thousand Barrels per Day)

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	0ct	Nov	Dec
1982						·						
Finished Motor Gasoline	128	133	183	185	182	230	225	291	223	185	211	178
Jet Fuel	10	62	39	47	31	3	31	26	30	20	#C	7
Distillate Fuel Oil	97	132	48	59	74	102	125	90	61	91	145	109
Residual Fuel Oil	831	956	912	788	742	652	657	550	872	783	836	747
Other Petroleum Products <sup>2</sup> 1983	573	533	427	449	474	504	604	445	592	557	650	564
Finished Motor Gasoline	153	128	186	255	305	277	302	250	279	330	269	224
Jet Fuel	27	8	35	1,5	29	26	30	40	44	49	23	24
Distillate Fuel Oil	68	59	42	73	147	179	267	301	259	260	203	221
Residual Fuel Oil	691	647	686	753	738	677	684	739	706	638	780	649
Other Petroleum Products <sup>2</sup> 1984	535	617	450	512	511	591	586	601	631	535	599	703
Finished Motor Gasoline	233	303	343	308	329	272	247	243	333			
Jet Fuel	60	112	45	95	55	44	34	95	30			
Distillate Fuel Oil	270	458	115	220	252	266	198	263	285			
Residual Fuel 011	1,061	1,107	633	637	554	676	596	572	596			
)ther Petroleum Products <sup>2</sup>	695	711	662	642	799	635	665	620	636			
Average for Four-Week Perio												
1984	10/5	10/12	10/19	10/26	11/2	11/9	11/16	11/23	11/30			
Finished Motor Casoline	281	265	276	334	334	375	302	249	255			
Jet Fuel	40	39	54	49	51	45	26	34	44			
Distillate Fuel Oil	297	371	373	340	356	308	306	348	319			
Residual Fuel Oil	519	595	544	501	547	486	468	445	461			
Other Petroleum Products <sup>2</sup>	600	677	664	563	609	558	598	601	573			

E=Estimate based on most recent monthly data available.

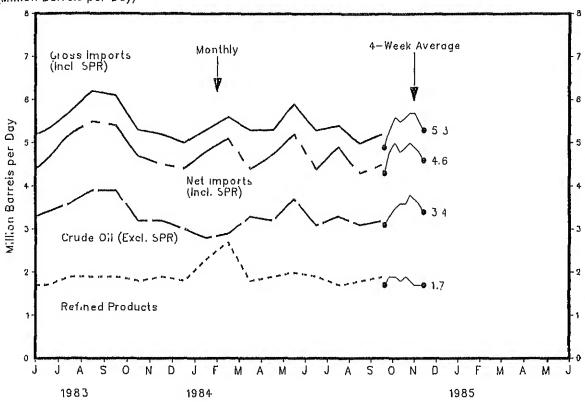
<sup>1</sup> includes exports of crude oil and refined petroleum products. Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

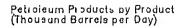
2 includes imports of kerosene, unfinished oils, motor gasoline blending components, liquefied petroleum gases and other oils,

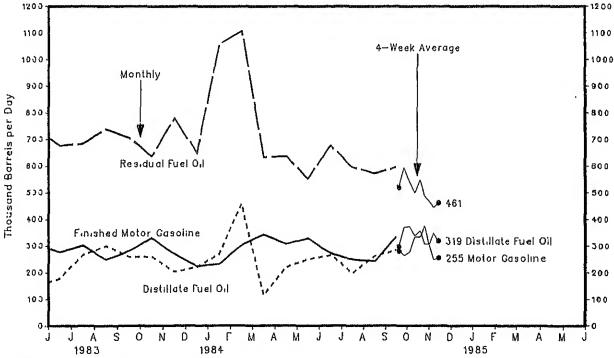
Note: Detail data may not add to total due to independent rounding. Source: See Sources Section of this publication.

# **Imports**

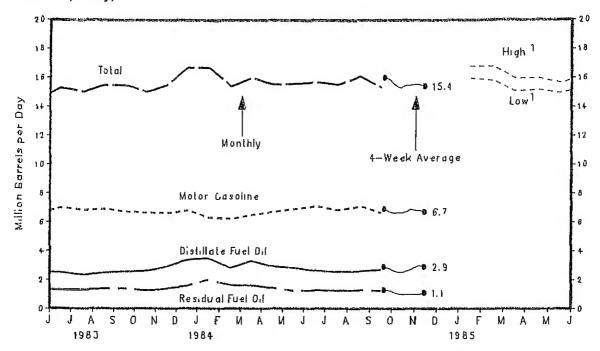
Crude Oil and Petroleum Products (Million Barrels per Day)







Source See Sources Section of this publication



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Ju1	Aug	Бер	0ct	Nov	Dec
1982 Motor Gasoline Jet Fuel Distillate Fuel Oil <sup>2</sup> Residual Fuel Oil <sup>2</sup> Other	6.0 1.0 3.5 2.2 3.5 16,1	6.2 1.1 3.1 2.3 3.3 16.0	6.5 1.0 2.9 1.9 3.3	6.9 1.0 3.0 1.9 3.2 16.0	6.7 1.0 2.4 1.6 3.2 14.8	6.8 1.0 2.5 1.5 3.2 15.0	6.8 1.0 2.1 1.6 3.4 14.8	6.6 1.0 2.2 1.5 3.5	6.5 1.0 2.5 1.5 3.5	6.4 1.0 2.6 1.5 3.4 14.9	6.6 1.1 2.5 1.6 3.3 15.0	6.5 1.1 2.9 1.6 3.4 15.5
1983 Motor Gasoline Jet Fuel Distillate Fuel Oil <sup>2</sup> Residual Fuel Oil <sup>2</sup> Other	6.1 1.0 2.8 1.6 3.3 14.7	6.0 1.1 2.8 1.6 3.4 14.8	6.8 1.0 2.9 1.6 3.2 15.5	6.5 1.0 2.7 1.4 3.1 14.7	6.6 1.0 2.4 1.3 3.2 14.5	7.0 1.1 2.5 1.3 3.4 15.3	6.8 1.1 2.3 1.3 3.6 15.0	6.9 1.1 2.5 1.4 3.6 15.5	6.7 1.1 2.6 1.4 3.8 15.5	6.6 1.0 2.6 1.2 3.5 15.0	6.6 1.0 2.9 1.4 3.7 15.5	6.8 1.2 3.4 1.6 3.7 16.7
1984 Potor Casoline Jet Fuel Distillate Fuel Oil? Residual Fuel Oil? Other Total	6.3 1.2 3.5 2.0 3.8 16.7	6.2 1.1 2.8 1.6 3.6 15.4	6.5 1.1 3.3 1.6 3.5 16.0	6.7 1.1 2.9 1.4 3.4 15.5	6.9 1.1 2.8 1.2 3.5 15.6	7.1 1.1 2.6 1.3 3.6 15.7	6.8 1.2 2.5 1.2 3.8 15.5	7.1 1.2 2.6 1.3 3.9 16.1	6.6 1.2 2.7 1.2 3.7 15.3			
verage for Four-Week Peri	od Ending: 10/5	10/12	10/19	10/26	11/2	11/9	11/16	11/23	11/30			
Motor Gasoline Jet Fuel Distillate Fuel Cil <sup>2</sup> Residual Fuel Oil <sup>2</sup> Other Total	6.9 1.2 2.9 1.3 3.8 16.0	6.7 1.2 2.8 1.3 3.9 15.9	6.6 1.3 2.6 1.1 3.8 15.5	6.7 1.2 2.5 1.0 3.9 15.3	6.7 1.2 2.6 1.0 3.9 15.5	6.9 1.2 2.7 1.0 3.8 15.5	6.8 1.2 2.9 1.0 3.7 15.5	R6.8 1.1 R3.0 1.0 3.6 R15.5	6.7 1.2 2.0 1.1 3.5 15.4			

Note: Detail data may not add to total due to independent rounding.

R=EIA Revision

1 Projected. See Appendix C for explanation of derivation of values,

2 Beginning in 1983, crude oil burned as residual fuel oil or distillate fuel oil is no longer reported
to the EIA and therefore is not included in product supplied calculations for these fuels. The product
supplied series for distillate and residual fuel oil for 1982 shown on this page are the values published
in 1982 EIA publications and include crude oil transfers (about 48 thousand barrels per day for residual fuel oil and 10 thousand barrels per day for distillate fuel oil). See Appendix D for further information.

Source: See Sources Section of this publication.

Year/Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Λug	Sep	Oct	Nov	Dec
1982		-										<del></del>
Domestic	33.39	32.71	31.08	30.27	30.37	30.79	30.92	30.85	30.76	31.38	31.57	30.80
Imported	35.54	35.48	34.07	32.82	32.78	33.79	33.44	32.95	33.03	33.28	33.09	32.85
Composite	33.95	33.40	31.81	30.83	31.02	31.74	31.74	31.45	31.40	31.98	32.07	31.29
1983												
Domestic	30.55	29.16	28.69	28.45	28,68	28.67	28.74	28.58	28.69	28.88	28.76	28.62
Imported	31.40	30.76	28.43	27.95	28.53	29.23	28.7€	29.50	29.54	29.67	29.09	29.30
Composite	30.73	29.49	28.64	28.33	28.64	28.85	28.75	28.88	28.97	29.14	28.85	28.83
1984												
Domestic	28.62	28.76	28.75	28,63	28.65	28.58	28.70	28.59	28.56			
Imported	28.80	28.91	28.95	29.11	29.26	29.19	29.00	28.92	28.70			
Composite	28,67	28.81	28.81	28.77	28.83	28,77	28.79	28.69	28.00			
,												

AVERAGE RETAIL SELLING PRICES MOTOR CASOLINE AND RESIDENTIAL HEATING OIL (Cents per Gallon, Including Taxes)

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Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Λug	Sep	Oct	Nov	Dec
1982					-							
Motor Gasoline												
Leaded Regular	128.5	126.0	120.6	114.8	116.6	124.2	126.3	125.4	123.6	121.9	120.7	118.1
Unleaded Premium	146.6	144.8	140.8	135.1	135.5	141.8	144.3	143.9	142.9	142.1	141.2	139.4
Unleaded Regular	135.8	133.4	128.4	122.5	123.7	130.9	133.1	132.3	130.8	129.5	128.3	126.0
All-Types	134.1	131.8	126.8	121.0	122.4	129.6	131.8	131.0	129.5	128.0	126.8	124.4
Residential Heating Oil	122.0	120.7	115.3	113.2	114.3	116.2	115.8	115.9	115.2	119.6	121.6	119.7
1983 Motor Gasoline Leaded Regular Unleaded Premium Unleaded Regular All-Types Residential Heating Oil <sup>1</sup>	114.6 137.6 122.8 121.3 115.0	109.9 133.8 118.7 117.0 111.6	106.4 130.8 115.1 113.5 105.1	113.1 136.0 121.5 119.8 103.5	117.7 139.7 125.9 124.3 104.8	119.7 141.1 127.7 126.1 106.0	120.7 142.1 128.8 127.2 105.0	120.3 141.9 128.5 126.9 104.9	118.9 141.0 127.4 125.7 105.7	117.2 139.5 125.5 123.9 106.0	115.6 158.4 124.1 122.4 106.0	114.6 137.6 123.1 121.5 106.7
1984 Motor Gasoline Leaded Regular Unleaded Premium Unleaded Regular All-Types Residential Heating Oil	113.1 136.9 121.6 120.0 112.0	112.5 136.1 120.9 119.3 116.9	112.5 136.2 121.0 119.4 111.3	114.5 137.5 122.7 121.1 109.8	115.4 138.0 123.6 122.1 108.4	114.7 137.7 122.9 121.4 107.2	112.9 137.0 121.2 119.7 104.8	111.6 135.5 119.6 118.4 103.3	112.0 136.0 120.3 118.9 P103.6	112.7 136.5 120.9 119.6		

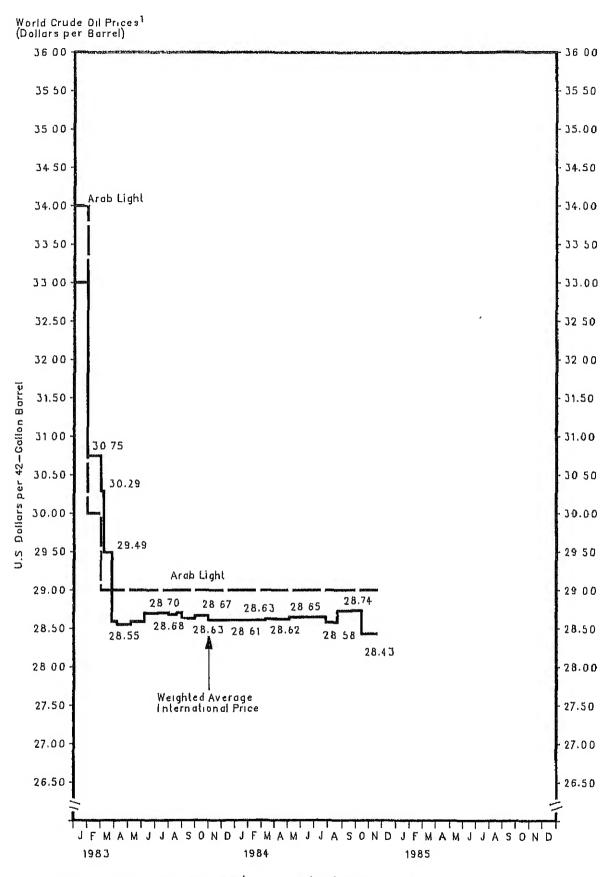
P=Preliminary
1 Beginning in January 1983, residential heating oil prices do not include taxes. Prices for 1982 are backcasted estimates which exclude taxes.
Source: See Sources Section of this publication.

	Type of							Percent Change Current Price From		
Country	Crude/ API Gravity	Current Price	In Effect 1 Jan 83	In Effect 1 Jan 82	In Effect 1 Jan 81	In Effect 1 Jar 80	In Effect 31 Dec 78	In Effect 1 Jan 80	in Efrect 31 Dec 78	
OPEC				1107						
Saudi Arabia	Arabian Light 34° (Benchmark crude)	29.00	34.00	34.00	32,00	2€.06	12.70	11.5	128.3	
Abu Dhabi	Saudi Berri 39° Arabian Heavy 27° Murban 39°	29.52 26.00 29.56	34.52 31.00 34.56	35.40 31.00 35.50	33.52 31.00 36.56	27.52 25.00 29.50	13.23 12.02 13.26	7.3 4.0 0	123.1 116.3 122.9	
Dubai Qatar	Fateh 32° Dukhan 40°	28.86 29.49	33.86 34.49	33.86 35.45	35.93 37.42 37.00	27.93 29.42 30.00 <sup>2</sup>	12.64 13.19 13.45	3.3 0.2 -6.7	128.3 123.6 108.2	
lran Iraq Kuwait	Iranian Light 34° Kirkuk 36° Kuwait Blend 31°	28.00 29.83 27.30	31.20 34.83 32.30	34.20 34.93 32.30	37.50 35.50	29.29 27.50	13.17 12.22	1.8 -0.7	126.5 123.4	
Neutral Zore Algeria Nigeria	Khafji 28° Saharan 44° Bonny Light 37°	26.03 30.50 28.00	31.03 35.50 35.50	31.03 37.00 36.50	25.20 40.00 40.00	27.20 33.00 29.97	12.03 14.10 15.12	-4.3 -7.6 -6.6	116.4 116.3 85.2	
Libya Indonesia Venezuela	Es Sider 37° Minas 34° Tia Juana 26°	30.15 29.53 27.88	35.10 34.53 32.88	36.50 35.00 32.88	40.78 35.00 32.88	34.50 27.50 25.20	13.68 13.55 12.72	-12.6 7.4 10.6	120.4 117.9 119.2	
Gabon Ecuador	Mandji 30° Oriente 30°	29.00 27.50	34.00 32.50	34.00 34.25	35.00 40.06	28.00 33.50	12.59 12.35	3.6 -17.9	130.3 122.7	
Total OPEC <sup>3</sup>	NA	28.58	33.54	34.13	34.82	28.30	13.03	1.0	119.3	
Non-OPEC United Kingdom Norway Mex <b>i</b> co	Forties 36° Ekofisk 42° Mexican Light 33°	28.55 28.50 29.00	33.50 34.25 32.50	36.50 37.25 35.00	39.25 40.00 38.50	29.75 32.50 32.00	14.00 14.20 13.10	-4.0 -12.3 -9.4	103.9 100.7 121.4	
Egypt Omeri	Mexican Heavy 22° Suez Blend 33° Oman 34° Suwadiyah 25°	25.50 <sub>4</sub> 28.00 <sup>4</sup> 29.00 25.00	25.50 31.00 34.00 30.00	26.50 34.00 35.00 30.00	34.50 40.50 37.50 36.03	28.00 34.00 30.2€ 31.39	NA 12.81 13.06 11.64	-8.9 -17.6 -4.2 -20.4	NA 118.6 122.1 114.8	
Syria Malaysia Brunei U.S.S.P. <sup>5</sup>	Miri 38° Seria 36° Export Blend 33°	29.85 29.60 28.00	35.60 35.10 31.20	36.50 36.10 35.49	41.30 40.35 39.25	33.60 33.40 33.20	14.30 14.15 13.20	-11.2 -11.4 -15.7	108.7 109.2 112.1	
Total Non-OPEC <sup>3</sup>	NA NA	28.18	31.72	34.35	38.54	31.94	13.44	-11.8	109.7	
Total World <sup>3</sup>	NA	28.43	33.00	34.18	35.49	28.84	13.08	-1.4	117.4	
United States <sup>6</sup>	NA	28.03	32.51	34.15	36,69	29.35	13.38	-4.5	109.5	

NA=Not Applicable.

<sup>1</sup> Official sales prices or estimated term contract prices; spot prices excluded. See Appendix E for further explanation.

<sup>2 37</sup> cents higher at 60 days' credit.
2 37 cents higher at 60 days' credit.
3 Average prices (FOB) weighted by estimated export volume.
4 On 60 days' credit.
5 Average delivered cost to Northwest Europe.
6 Average prices (FOB) weighted by estimated import volume, Source: See Sources Section of this publication.

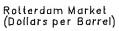


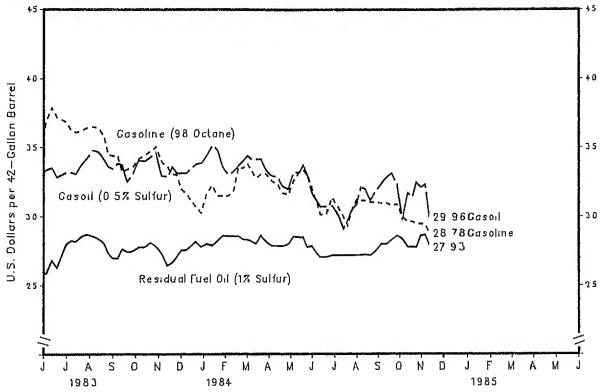
1 Internationally traded oil only Average price (FOB) weighted by estimated export volume.

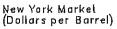
		Motor (	Gasoline	Gason1/Hea	ting Oil <sup>1</sup>	Residual	Fuel Oil <sup>2</sup>	
		Rotterdam (98 Octane)	N.Y. <sup>3</sup> (89 Octane)	Rotterdam (0.5% Sulfur)	N.Y. <sup>4</sup> (0.2% Sulfur)	Potterdam (1% Sulfur)	N.Y. <sup>3</sup> (1% Sulfur)	
1983 No		34.70	34.65	34.25	34.65	28.08	28.25	
	11	35.05	34.25	34.65	34.12 33.28	27.85	28.75	
	18	33.94	33.54	32.91	33.28	27.33	28.50	
De	25 c 2	33.59 33.06	33.08 32.66	32.84 33.58	33.18 32.97	26.43 26.65	28.25 28.20	
Det	9	37.94	31.90	33.11	33.08	27.10	28.25	
	16	31.95	30.91	33.11	32.66	27.55	28.50	
	23	31.65	30.98	33.11	33.70	27.55	28,50	
	30	Not avail	able.					
1964 Jai		30.72	32.57	33.78	35.28	28.15	29.75	
	13	30.25	32.34	33.85	36.12	27.78	30.15	
	20	31.65	34.17	34.38 35.12	41.79 44.10	28.00 27.85	30.25 31.25	
Fel	27	32.24 31.48	33.43 34.69	34.79	42.42	28.23	31.50	
1 61	10	31.48	33.64	33.51	38.01	28.60	31.00	
	17	31.48	33.25	33.04	34.23	28.53	30.75	
	24	31,89	33.18	33.24	32,55	28.53	30.25	
hias	, ;	33.59	34.86	33.71	33,08	28.53	29.25	
	ō	33.47	35.01	33.98	32.86	28.30	29.25	
	1€	33.82	34.69	34.38	32.55	28.30	29.00	
	23	33,29	34.38	34.12	33.50	28.15	28.75	
4	30	32.77	35.87	34.12	34.76	28.00 28.60	28.75 29.25	
Abi	· 6	33.06 33.06	35.26 35.15	34.12 33.31	35.91 36.02	28.15	29.40	
	20	32.53	34.08	32.91	36.12	27.85	29.40	
	27	32.36	33.73	32.84	36.02	27.85	29.40	
Max	, 4	31.65	33.96	32.17	35.80	27.85	29.25	
•	11	31.59	33.75	31.97	36.12	28.00	29.25	
	18	32.59	33.85	33.18	35.70	28.53	29.40	
	25	33.18	33.52	33.18	34.12	28.45	29.85	
Jur	1	33,35	33.10	33.71	34.23	28.45	30.00	
	ն 15	33.00	32.68	33.04 31.70	33.81 32.34	27.78 27.85	29.90 29.75	
	22	32.12 31.18	32.05 31.10	31.70	32.13	27.40	29.75 29.25	
	29	30.13	32.05	30.70	32,30	27.03	28.75	
Ju 1	6	Not avail		20170	52,50	27.03	20175	
	12	31,36	32.03	30.76	32,28	27.18	29.00	
	20	30.66	31.29	30.16	31.92	27.16	28.75	
	27	29.95	30.98	29.09	30.66	27.18	28.50	
Aug	: .3	29,31	32.24	29.76	31.71	27.18	27.75	
	10	30.54	32.09	30.50	31.71	27.18	27.50	
	17	31,74	32.02	30.83	32.02 32.97	27.18	27.75	
	24 31	31.13 31.13	32.13 32.34	32.10 31.97	32.55	27.18 27.25	28.00 28.65	
Sep		31.01	32.76	31.17	33,08	27.18	28.75	
001	14	30.95	32.82	31.84	33.39	27.48	28.75	
	21	30.95	33.18	32.37	33.81	28.00	28.75	
	28	30.95	33.01	32.84	34.23	28.00	28.70	
Oct		20.77	32.91	33.11	34.02	28.30	28.75	
	1?	30.89	33.54	32.31	33.08	28.60	28.75	
	15	29.95	30.68	29,83	30.24	28.38	28.75	
k	26	19.60	30.68	31.70	32.34	27.78	28.25	
hov	· 2 9	29.60 29.43	31.46 20.64	31.37 32.44	32.34 32.55	27.78 27.78	28.25 28.25	
	16	29.43	30.03	32,44	32.02	28,60	28.70	
	23	29.37	29.65	32.31	32.13	28.68	28.90	
	30	28.78	28.92	29.96	31,50	27.93	28.80	

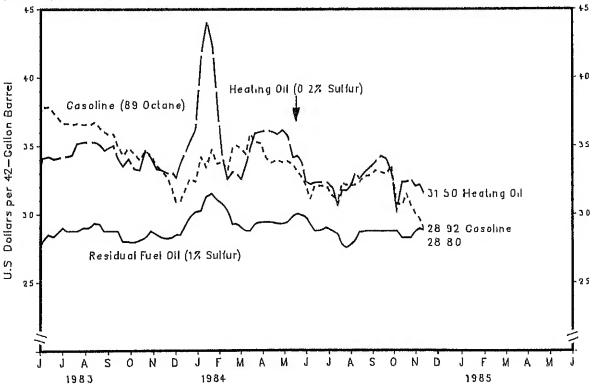
<sup>1</sup> Refers to No. 2 Heating Cil. 2 Refers to No. 6 Oil. 3 East Coest Carcoes. 4 New York Harbor Reseller Barge Prices.

# Spot Market Product Prices









Source See Sources Section of this publication.

Weather data reported in the Weekly Petroleum Status Report are now taken directly from a computerized system implemented by the National Oceanic and Atmospheric Administration, Department of Commerce.

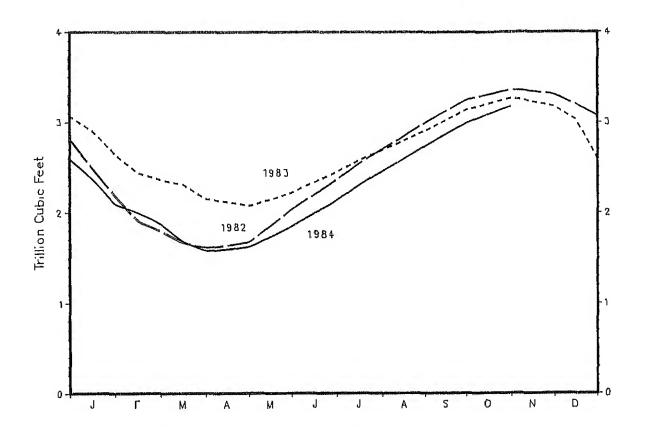
The weather for the nation, as measured by population-weighted heating degree-days from July 1, 1984 through December 1, 1984, has been 3 percent warmer than normal and 4 percent cooler than last year.

U.S. TOTAL HEATING DEGREE DAYS (Population Weighted) and by CITY

				Percent	Change
	1984 This year	1983 Last year	Normal	This year vs. Last year	This year vs. Normal
July 1 - June 30		4,903	4,689		
July 1 - December 1	927	890	959	4	-3
Cities					
Albuquerque	1,115	819	937	36	19
Amarillo	941	747	879	26	7
Asheville	874	866	946	1	-8
Atlanta	483	574	567	-16	<del>-</del> 15
Billings	1,912	1,472	1,708	30	12
Boise	1,569	1,234	1,383	27	13
Boston	1,141	970	1,063	18	7
Buffalo	1,425	1,325	1,399	8	2
Cheyenne	2,077	1,722	1,814	21	14
Chicago	1,376	1,279	1,272	8	8
Cincinnati	950	1,026	1,071	~7	~11
Cleveland	1,228	1,180	1,255	4	-2
Columbia, SC	495	506	493	-2	ō
Denver	1,582	1,333	1,398	19	13
Des Moines	1,340	1,258	1,297	7	3
Detroit	1,322	1,309	1,378	1	- t <sub>i</sub>
Fargo	2,015	2.011	2,069	ċ	-3
Hartford	1,229	1,215	1,264	ĭ	-3
Houston	232	181	257	?ė	-10
Jacksonville	247	202	207	22	1 <u>9</u>
Kansas City	1,062	983	1,013	8	`Š
Las Vegas	502	305	443	62	13
Los Angeles	217	129	265	68	-18
Memphis	522	491	598	6	-13
Miami	9	4	6	****	****
Milwaukee	1,414	1,356	1,503	ł <sub>+</sub>	-6
Minneapolis	1,684	1,655	1,708	2	•1
Montgomery	347	330	421	5	-18
New York	749	852	866	-12	-14
Oklahoma City	714	614	689	16	4
Omaha	1,289	1,307	1,245	÷1	i,
Philadelphia	866	920	932	-6	-7
Phoenix	144	158	192	-9	-25
Pittsburgh	1,156	1,195	1,266	-3	-9
Portland, ME	1,524	1,490	1,658	2	-8
1 lence	1,068	988	1,170	8	-9
5	661	679	686	-3	-9 -4
ď	703	832	771	-3 -16	-9
u	890				
		780	964	14	-8
	1,233	1,019	1,269	21	~3
	1,258	1,001	1,295	26	-3
	562	382	763	47	-26
	1,339	1,227	1,381	9	-3
Washington DC	347	403	397	-14	-13
Washington, DC	695	668	744	i <sub>t</sub>	-7

<sup>\*\*\*\* =</sup> Normal less than 100 or ratio incalculable.

<sup>1</sup> See Clossary.



	Working Gas <sup>1</sup>					
	1982	1983	1984			
January 15 January 31 February 15 rebruary 28 March 15 March 31 April 30 May 31 June 30 July 31 August 31 Geptember 30 October 31 November 30 December 15 December 31	2.492 2.182 1.900 1.787 1.661 1.604 1.676 2.034 2.369 2.704 2.998 3.251 3.364 3.309 3.197 3.071	2.902 2.644 2.433 2.356 2.305 2.148 2.074 2.222 2.454 2.696 2.908 3.140 3.269 3.174 3.028 2.595	2.381 2.090 1.997 1.876 1.671 1.572 1.620 1.843 2.141 2.456 2.740 2.996 P3.177			

P≖Preliminary 1 Working Gas: Gas available for withdrawal. Source: See Sources Section of this publication.

# Weekly Estimates (Thousand Barrels per Day Except Where Noted)

Crude Oil Production	11/02/84	11/09/84	11/16/84	11/23/84	11/30/84
Domestic Production	E8,846.0	E8,846.0	E8,846.0	E8,846.0	E8,846.0
Inputs and Utilizations					
Crude Gil Input	12,504.0 12,621.0 16.0 78.7	12,195.0 12,334.0 16.0 76.9	12,090.0 12,204.0 16.0 76.1	R12,281.0 R12,421.0 16.0 R77.7	12,389.0 12,519.0 16.0 78.3
Production by Product					
Motor Gasoline  Jet Fuel  Naphtha-Type  Kerosene-Type  Distillate Fuel Oil  Residual Fuel Cil	6,465.0 1,183.0 192.0 990.0 2,811.0 1,028.0	6,695.0 1,152.0 190.0 962.0 2,848.0 822.0	6,665.0 1,155.0 207.0 948.0 2,792.0 819.0	R6,754.0 R1,098.0 R247.0 R851.0 R2,797.0 R881.0	6,762.0 1,199.0 212.0 987.0 2,918.0 939.0
Imports					
Crude Oil.  SPR  Total incl SPR.  Motor Gasoline.  Jet Fuel.  Naphtha-Type.  Kerosene-Type.  Distillate.  Resiqual.  Other.  Lotal Refined Products Imports.	3,691.0 314.0 4,005.0 246.0 57.0 0.0 57.0 377.0 654.0 582.0 1,916.6	4.492.0 377.0 4,869.0 426.0 12.0 0.0 274.0 423.0 515.0 1,650.0	3,282.0 122.0 3,404.0 123.0 14.0 0.0 14.0 389.0 317.0 707.0 1,550.0	R2,809.0 292.0 R3,101.0 201.0 52.0 0.0 352.0 352.0 386.0 601.0 1,592.0	2,974.0 254.0 3,228.0 270.0 99.0 57.0 42.0 262.0 718.0 470.0 1,819.0
Exports					
Total Crude Oil Products	E732.0 E190.0 E542.0	E732.0 E190.0 E542.0	E732.0 F190.0 E542.0	£664.0 E162.0 F502.0	E664.0 E162.0 E502.0
Products Supplied					
Motor Gasoline.  Total Jet Fuel.  Naphtha Jet Fuel.  Kerosene Jet Fuel.  D'stillate Fuel Oil.  Residual Fuel Oil.  Cther Oils.  Total Products Supplied.	6,641.0 1,122.0 205.0 917.0 3,216.0 1,189.0 3,750.0 15,917.0	7,006.0 1,130.0 272.0 858.0 2,681.0 1,018.0 3,547.0	6,417.0 1,310.0 166.0 1,144.0 3,160.0 1,109.0 3,558.0 15,554.0	R7,045.0 R891.0 R163.0 R728.0 R2,801.0 R686.0 R3,538.0 R14,961.0	6,252.0 1,434.0 345.0 1,089.0 2,840.0 1,677.0 3,445.0

R=EIA Revision E=Estimate tased on monthly data.

Source: See Sources Section of this publication.

#### Appendix A

#### EIA WEEKLY DATA: SURVEY DESIGN AND ESTIMATION METHODS

The Weekly Petroleum Reporting System (WPRS) comprises six surveys: the "Weekly Refinery Report" (EIA-800); the "Weekly Bulk Terminal Report" (EIA-801); the "Weekly Product Pipeline Report" (EIA-802); the "Weekly Crude Oil Stocks Report" (EIA-803); the "Weekly Imports Report" (EIA-804); and the "Weekly Shipments from Puerto Rico to the United States Report" (EIA-805). The EIA weekly reporting system, as part of the Petroleum Supply Reporting System, was designed to collect data similar to those collected monthly. In the WPRS, selected petroleum companies report weekly data to EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On the Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804 and EIA-805, the importer of record reports each shipment entering the United States. Current weekly data and the most recent monthly data are used to estimate the published weekly totals.

#### Sample Frame

The sample of companies that report weekly in the WPRS was selected from the universe of companies that report monthly. All sampled companies report data only for facilities in the 50 States and the District of Columbia. The EIA-800 sample frame includes all petroleum refineries in the United States and its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and bulk terminals that blend motor gasoline. The EIA-801 sample frame includes all bulk terminal facilities in the United States and its territories that have total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The FIA-802 sample frame includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate, and intracompany pipeline movements. Pipeline companies that transport only natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies which transport products covered in the weekly survey are included. The EIA-803 sample frame consists of all companies which carry or store crude oil of 1,000 barrels or more. Included are gathering and trunk pipeline companies (including interstate, intrastate and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water. The EIA-804 sample frame includes all importers of record of crude oil and petroleum products into the United States. The EIA-805 sample frame includes all importers of petroleum products into the United States from Puerto Rico.

#### Sampling

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for each item and each geographic region for which weekly data are published. The EIA-805 is a census of all importers of petroleum products from Puerto Rico.

	Refiners (Refineries)	Bulk Terminals	Product Pipelines	Crude Ofl Stock Holders	Importers	Shippers From PR
Weekly Form Monthly Frame Size	EIA-800 152(269)	EIA-801 318	EIA-802 90	EIA-803 180	EIA-804 1208	EIA-805 3
Weekly Sample Size	€0(157)	81	47	87	66	3

#### Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. All canvassed firms must file by 5:00 p.m. on the Monday following the close of the report week, 7 a.m. Friday. During the processing week, company corrections of the prior week's data are also entered.

#### Estimation and Imputation

After the company reports have been checked and entered into the weekly data base, explicit imputation is done for companies which have not yet responded. The imputed values are exponentially smoothed means of recent weekly reported values for this specific company. The imputed values are treated like reported values in the estimation procedure, which calculates ratio estimates of the weekly totals. First, the current week's data for a given product reported by companies in a geographic region are summed. (Call this weekly sum. W). Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum, M). Finally, let M<sub>t</sub> be the sum of most recent month's data for the product as reported by all companies. Then, the current week's ratio estimate for that product for all companies, W<sub>t</sub>, is given by:

$$W_{t} = \frac{H_{t}}{M_{s}} \cdot W_{s}$$

This procedure is used directly to estimate total weekly inputs to refineries and production. To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types. Shipments from Puerto Rico are considered imports for estimation purposes.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of total weekly imports is the product of the smoothed ratio and the sum of the weekly reported values and imputed values. Imports of other oils include an adjustment from Census data for unlicensed products because of coverage differences between the monthly imports data and Census data.

#### Response Rates

The response rate as of the day after the filing deadline is about 80 percent for the EIA-800; 75 percent for the EIA-801; 95 percent for the EIA-802; 80 percent for the EIA-803; greater than 95 percent for the EIA-804 and 100 percent for the EIA-805. However, more forms are received the next day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimates is usually between 2 percent and 5 percent.

#### Appendix B

#### INTERPRETATION AND DERIVATION OF AVERAGE INVENTORY LEVELS

The national inventory (stocks) graphs for total petroleum products, crude oil, motor gasolire, distillate fuel oil, and residual fuel oil in this publication include features to assist in comparing current inventory levels with past inventory levels and with judgements of critical levels. Methods used in developing the average inventory levels and minimum operating levels are described below.

#### Average Inventory Levels

The charts displaying inventory levels of crude oil and petroleum products (p.7), crude oil (p.7), motor gasoline (p.9), distillate fuel oil (p.11), and residual fuel oil (p.13) provide the reader with actual inventory data compared to an "average range" from the most recent 3-year period running from January through December or from July through June. The ranges are updated every six months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a longer time period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels). The intent of deseasonalization is to remove only annual variation from the data. Thus, deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors for total petroleum (crude and products), crude oil, distillate fuel oil, and residual fuel oil were derived using monthly data from 1977-1983. In 1977, monthly stock levels of motor gasoline stoyed at the same high level for the entire year. Since there was virtually no seasonal behavior in motor gasoline stocks that year, data for 1978-1983 were used in the determination of seasonal patterns for motor gasoline stocks.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36-months is calculated adjusting for extreme data points. The upper curve of the "average range" is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the "average range" is twice the standard deviation. The values of the upper and lower curves are presented in the table below.

# Values of Average Ranges in Inventory Graphs (Millions of Barrels)

	Jan	Feb	Mar	Арг	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Lower Range												
Total Petroleum Crude Oil Motor Gasoline Distillate Fuel Oil Residual Fuel Oil	1096.9 344.9 243.6 136.5 52.6	1064.8 346.6 246.0 110.0 43.9	1038.7 349.4 240.9 92.6 42.0	1039.8 352.2 226.2 88.0 42.7	1049.5 346.9 218.4 96.6 48.1	1062.3 346.4 215.7 109.7 46.5	1088.7 345.1 216.3 130.6 48.1	1104.8 341.1 213.4 148.4 48.7	1121.1 336.5 216.6 163.1 53.7	1129.8 344.9 211.5 168.7 56.3	1138.4 346.0 218.1 172.4 59.9	1115.0 337.8 227.3 160.5 58.7
					Upper Ra	nge						
Total Petroleum Crude Oil Hotor Gasoline Distillate Fuel Oil Residual Fuel Oil	1194.8 362.9 264.1 167./ 68.8	1162.7 364.6 266.5 141.2 60.1	1136.6 367.3 261.4 123.8 58.1	1137.7 370.2 246.7 119.2 58.9	1147.4 364.9 239.0 127.8 64.3	1160.2 364.3 236.3 140.9 62.7	1186.7 363.1 236.9 161.8 64.2	1202.7 359.0 234.0 179.7 64.8	1219.1 354.5 237.2 194.3 69.8	1227.7 362.9 232.1 199.9 72.4	1236.3 363.9 238.6 203.7 76.0	1213.0 355.7 247.8 191.8 74.8

#### Minimum Operating Inventories

The lines labeled "Minimum Operating Inventory" (MOI) on the stocks graphs for crude oil, motor gasoline, distillate fuel oil, and residual fuel oil represent estimates of those inventory levels made by the National Petroleum Council (NPC) and published in November 1963 in "Prtroleum Inventories and Storage Capacity -- An Interim Report." The NPC defines the MOI as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. The NPC report presents the findings of a study which was directed by the NPC's Committee on Petroleum Inventories and Storage Capacity. MOI estimates presented in

the report were developed by consensus through a decision-making process that relied on the judgement of Committee members based on their operating experience, or historical inventory trends, and on the results of a NPC survey of companies that provide primary inventory data to the Energy Information Administration.

The estimated values are: Crude oil -- 285 million barrels; motor gasoline -- 200 million barrels; distillate fuel oil -- 105 million barrels; and residual fuel oil -- 40 million barrels.

The NPC did not develop a minimum operating inventory level for total petroleum stocks. The line labeled "observed minimum" on the "Stocks of Crude Oil and Petroleum Products, U.S. Total" graph is the lowest inventory level observed during the same 3-year base period that was used in the derivation of the average inventory levels shown on the graph.

#### Appendix C

### PROJECTION FROM THE SHORT-TERM ENERGY OUTLOOK, OCTOBER 1984

The projections of "high" and "low" total petroleum demand, shown in the WPSR as total product supplied, are from the Office of Energy Markets and End Use, Short-Term Energy Outlook (Outlook), October 1984. The three forecast cases presented in the Outlook for the last quarter of 1984 through 1985 are based on different assumptions about the growth of the U.S. economy and the associated price of imported crude oil to U.S. refiners. In the high economic growth case, it is assumed that the price of imported crude oil falls to \$27.67 per barrel in the fourth quarter of 1984, and then falls to \$25.00 per barrel in the first quarter of 1985, staying at that level for the remainder of the year. In the base case, it is assumed the average cost for imported crude to U.S. refiners remains at \$29.00 per barrel through the entire forecast period. In the low economic growth case, it is assumed that imported crude oil prices rise at more than twice the U.S. rate of inflation through the forecast period.

The plots of the "low" and "high" demand cases shown in the figure are the result of adding upper and subtracting lower range sensitivity differentials to the projected low and high price petroleum demand projections. These differentials are in turn comprised of an economic sensitivity differential, representing an incremental change in petroleum demand due to a higher or lower rate of economic activity than is assumed in the base case and a weather sensitivity differential, representing an incremental change in demand due to either adverse or favorable weather conditions that may occur during the forecast period. The upper range differential also includes a fuel-switching adjustment, which estimates the increase in (petroleum) demand due to a lower rate at which households switch from heating oil to other fuels than is assumed in the base case. The upper range differential is developed by taking the square root of the sum of the squares of the amount of increased petroleum demand that would result from adverse weather, the increase due to a high rate of economic activity, and the increase due to a lower rate of fuel-switching than is assumed by the base case. The lower range differential is developed by taking the square root of the sum of squares of the projected decreased demand due to favorable weather, and the projected decrease due to a low rate of economic activity.

These combined upper and lower range sensitivity differentials are then added to the low and subtracted from the high price petroleum demand forecasts, respectively, to form projected high and low petroleum demand levels that take account of possible variation in price, fuel-switching activity, economic activity, and weather during the forecast period.

For more detailed information on the above (and other components of the forecast), please refer to the published report, Short-Term Energy Outlook, October 1984, especially Table 13.

Copies of the report are available from:

National Energy Information Center Room 1F-048, Forrestal Building 1000 Independence Avenue, S.W. Washington, D.C. 20585 Telephone 202-252-8800

#### Appendix D

### CHANGES IN WEEKLY PETROLEUM STATUS REPORT SERIES

Some Weekly Petroleum Status Report (WPSR) data series presented for 1983 and 1984 are different from 1982 WPSR data series. The differences, which are discussed below, are the result of a change in estimation methodology and changes in the reporting frame.

#### Change in Methodology

Beginning in 1983, reports of crude oil used as fuel on leases are treated as reports of crude oil product supplied, a new product supplied category. Before 1983, crude oil used in this fashion was reported as a use of distillate fuel oil or residual fuel oil and was included in the respective product supplied calculations. The monthly series for 1982 shown on p. 16 are the quantities originally calculated and published including crude oil used as fuel. In 1982, the quantities of crude oil used directly in the distillate fuel oil product supplied and residual fuel oil product supplied calculations averaged 10 thousand barrels per day and 48 thousand barrels per day, respectively.

#### Change in Stock Basis

The list of operators of bulk terminals, pipelines, and crude stock holders required to report each month their crude oil and petroleum product stocks was updated in a regular review of the petroleum supply reporting frame during 1982. (See the article in Petroleum Supply Monthly, March 1983 for details.) This expansion was first incorporated in monthly data published for January 1983. The new list of operators was also used to select new samples for EIA Forms 801 (bulk terminals), 802 (pipelines), and 803 (crude stock holders) of the weekly petroleum reporting system. The new weekly sample was used for estimation beginning with the week ending April 1, 1983. The table below shows the new-basis stock levels for December 31, 1982 which can be compared with the old frame stock levels shown on the respective pages of the WPSR. The new-basis stocks of crude oil and petroleum products, including the Strategic Petroleum Reserve, are 2.2 percent greater than the old basis stocks.

#### New Basis Stock Levels for Crude Oil and Petroleum Products December 31, 1982

	Percent Increase	U.S. Total	PADD 1	PADD 2	PADD 3 Thousand Barre	PADD 4	PADD 5
Crude Oil	0.21	644,993	17,550	78,535	455,286	13,512	80,110
Total Motor Gasoline	3.4	243,542	69,376	66,959	68,040	8,567	30,600
Finished Gasoline	3.9	202,032	64,095	57,715	51,165	6,094	22,963
Blending Components	1.4	41,510	5,281	9,244	16,875	2,473	7,637
Naphtha-type Jet Fuel	18.1	6,695	792	1,525	2,250	349	1,779
Kerosene-type Jet Fuel	2.5	31,948	9,570	7,308	9,004	638	5,428
Distillate Fuel Oil	3.9	185,527	84,721	48,243	34,917	4,051	13,595
Residual Fuel Oils	3.5	68,532	35,961	5,377	16,701	634	9,859
Unfanashed Cils	0.0	105,269	13,656	17,777	46,209	2,686	24,941
Uther Oils	6.4,	174,453	22,033	49,422	89,194	3,766	10,038
Total Oils	2.2	1,460,959	253,€59	275,146	721,601	34,203	176,350

<sup>1</sup> Calculated including stocks of crude oil in Strategic Petroleum Reserve (293,827 thousand barrels on December 31, 1982).

#### Appendix E

#### CALCULATION OF WORLD OIL PRICES

The weighted average international price of oil, shown in the "Highlights" on page 1 and on page 18, is an average calculated using specific crude oil prices weighted by the estimated crude oil export volume for each cil-producing country. To develop the table shown on page 18, a list of major oil producing/exporting countries was chosen. For each country, the official selling price of one or more representative crude oils was determined by investigating a number of industry publications (i.e., "Oil Buyers' Guide", "Platt's Oilgram Price Report", "Petroleum Intelligence Weekly", and "Europe Oil Prices") and by contacting oil market analysts.

Then, the appropriate crude oil volumes to be used as weighting factors for each country were determined. These volumes are estimates based on a number of sources which provide data on production, consumption, and exports for these countries. Export volumes for a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors. After the export volumes had been determined, simple mathematical reighted averages were calculated to arrive at the "Total OPEC," "Total Non-OPEC," and "Total World" prices.

The average United States (FOB) import price is derived by the same basic procedure as the world oil price, that is, taking the representative official crude oil price of a specific crude oil from a particular country and weighting this price by a certain volume of crude oil. In this case, the weighting factors are the volumes of crude oil imported into the U.S. from pertinent countries. Import volumes from a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors.

Both the import and export volumes are prelimirary. Pue to their origin, these estimates cannot be fully verified. These volumes are updated monthly, or more frequently when changes in oil market conditions make updating appropriate.

#### **GLOSSARY**

- o Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons.
- o Cooling Degree-Days. The number of degrees per day the daily average temperature is above 65 degrees F. The daily average temperature is the mean of the maximum and minimum temperature for a 24-hour period.
- o Crude Oil. A mixture of hydrocarbons that existed in liquid phase in undergrourd reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Lease condensate and drips are included but topped crude oil (residual) and other unfinished oils are excluded.
- o Crude 0il Input. The total crude oil put into processing units at refineries.
- o Degree-Day Normals. Simple arithmetic averages of monthly or annual degree-days over a long period of time (usually the 30-year period 1951-1980). These may be simple degree-day normals or population-weighted degree-day normals.
- o Distillate Fuel Oils. Includes No. 1, No. 2, and No. 4 fuel oils, and No. 1. No. 2, and No. 4 diesel fuels. These are light fuel oils used primarily for home heating, as a diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and for electric power generation.
- o Gross Inputs. The crude oil, unfinished oils, and natural gas plant liquids put into distillation units.
- o Heating Degree-Days. The number of degrees per day the daily average temperature is below 65 degrees F. The daily average temperature is the mean of the maximum and minimum temperature for a 24-hour period.
- o Imports. Unless otherwise specified in this report, refers to gross imports. Imports of minor products ("other oils") include aviation gasoline, kerosene, unfinished oils, liquefied petroleum gases, plant condensate, petrochemical feedstocks, lube oils, waxes, special naphthas, coke, asphalt, gascline blending components, and other miscellaneous oils.
- o Jet Fuel. Includes kerosene-type jet fuel and naphtha-type jet fuel. Kerosene-type jet fuel is a kerosene quality product used primarily for commercial turbojet and turboprop aircraft engines. Naphtha-type jet fuel is a fuel in the heavy naphthas range used primarily for military turbojet and turboprop aircraft engines.
- o Motor Gasoline. Finished leaded gasoline, finished unleaded gasoline, and blending components in the gasoline range. Production and imports data represent iinished leaded gasoline and finished unleaded gasoline. Stocks data consist of the two types of finished gasoline and blending components. Stock change used in the calculation of motor gasoline product supplied is the change in finished motor gasoline stocks. Imports of motor gasoline blending components are contained in other oils imports.
- o Operable Capacity. The maximum amount of input that can be processed by a crude oil distillation unit in a 24-hour period, making allowances for processing limitations due to types and grades of inputs, limitations of downstream facilities, scheduled and unscheduled downtimes, and environmental constraints. Includes any shutdown capacity that could be placed in operation within 90 days.
- o Petroleum Administration for Defense Districts (PADD). Five geographical areas into which the nation was divided by the Petroleum Administration for Defense for purposes of administration. These PADDs include the states listed below:
  - PADD 1: Connecticut, Delaware, District of Columbia, Florida, Georgia, Maine,
    Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carclina,
    Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia, and West
    Virginia.
  - PADD 2: Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, and Wisconsin.
  - PADD 3: Alabama, Arkansas, Louisiana, Mississippi, New Mexico and Texas.
  - PADD 4: Colorado, Idaho, Montana, Utah, and Wyoming.
  - PADD 5: Alaska, Arizona, California, Hawaii, Nevada, Oregon, and Washington.
- Population-Weighted Degree-Days. Heating or cooling degree-days weighted by the population of the area in which the degree-days are recorded. To compute State population-weighted degree days, each State is divided into from one to nine climatically homogeneous divisions which are assigned weights based on the ratio of the population of the division to the total population of the State. Degree-day readings for each division are multiplied by the corresponding population weight for each division and these products are then summed to arrive at the State population-weighted degree-day figure. To compute national population-weighted degree-days, the Nation is divided into nine Census regions comprised of from three to eight States which are assigned weights based on the ratio of the population of the region to the total population of the Nation. Degree-day readings for each region are multiplied by the corresponding population weight for each region and these products are then summed to arrive at the national population weighted degree-day figure.

- Product Supplied. A value calculated for specific products which is equal to domestic production plus net imports (imports less exports), less the net increase in primary stocks. Total products supplied is calculated as inputs to refineries, plus estimated refinery gains, plus other hydrocarbon input, plus product imports, less product exports, less the net increase in product stocks. Values shown for "Other Oils" product supplied are the difference between total product supplied and product supplied values for specified products. Other oils product supplied incorporates crude oil product supplied and reclassified product adjustment.
- Refiner Acquisition Cost of Crude Oil. The average price paid by refiners for crude oil booked into their refineries in accordance with accounting procedures generally accepted and consistently and historically applied by the refiners concerned. Domestic crude oil is that oil produced in the United States or from the outer continental shelf as defined in 43 USC Section 1131. Imported crude oil is any crude oil which is not domestic oil. The composite is the weighted average price of domestic and imported crude oil. Prices do not include the price of crude oil for the SPR.
- Refinery Capacity Utilization. Ratio of the total amount of crude oil, unfinished oils, and natural gas plant liquids run through crude oil distillation units to the operable capacity of these units. In the period 1979-1982 the refinery capacity utilization for all U.S. refineries ranged between 87 percent and 65 percent. The ratio for an individual refinery may fluctuate much more depending on the type of crude and other raw materials processed, the types of products produced, and the operating conditions of the refinery.
- Residual Fuel Oils. Includes No. 5 and No. 6 fuel oils which are heavy oils used primarily for electric power generation, for industrial and commercial space heating, as a ship fuel, and for various industrial uses.
- Retail Motor Gasoline Prices. Motor gasoline prices calculated each month by the Bureau of Labor Statistics (BLS) in conjunction with the construction of the Consumer Price Index (CPI). These prices are collected in 85 urban areas selected to represent all urban consumers—about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-service).
- Stock Change (Refined Products). Component of Product Supplied calculation shown on U.S. Petroleum Balance. The product stock change shown on the U.S. Petroleum Balance Sheet for the current 4-week period is calculated in the following way; an average daily stock change is calculated for major refined products (i.e., all actual reported stocks); this stock change is added to an estimate for minor product stock change based on historical monthly data; a daily average stock change for refined product stocks for the 4-week period is then calculated. To calculate minor product stock change, the stock levels shown for other oils in the stock section of the balance sheet are used. These other oils stock levels are derived by: 1) computing an average daily rate of stock change for each month based on monthly data for the past six years; 2) using this daily rate and the minor stock levels from the most recent monthly publication to estimate the minor product stock level for the current period.
- o Stocks. For individual products in the WPSR, quantities held at refineries, in pipelines, and at bulk terminals which have a capacity of 50 thousand barrels or more, and in transit thereto. Stocks held by product retailers and resellers, as well as tertiary stocks held at the point of consumption, are excluded. Stocks of individual products held at gas processing plants are excluded from individual product estimates but included in "Other Oils" estimates and "Total."
- Unaccounted-for Crude 0il. A term which appears in U.S. Petroleum Balance Sheet. It reconciles the difference between data (or estimates) about supply and data (or estimates) about disposition. Its value can be positive or negative since it is a balancing term. As it appears in the monthly publications, it reflects the accuracy of the reported data. Because the unaccounted-for crude oil figure reflects the accuracy of reported and estimated figures, one would expect the figure to be larger in balances using preliminary or estimated data and smaller in balances using final data. In fact, the published figures confirm this expectation. In the WPSR, four-week averages for the previous year are interpolated from final monthly data, so that the unaccounted-for crude oil value for the previous year is considerably smaller than that for the current period.
- o United States. For the purpose of the report, the 50 states and the District of Columbia. Data for the Virgin Islands, Puerto Rico, and other U.S. territories are not included in the U.S. Totals.

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